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## Rembrandt Allegro (Project 03-14) (12/03)



The Rembrandt Allegro curing light uses Light-Emitting-Diode (LED) technology to cure light-activated dental materials. The light features a lightweight, cordless design that reportedly provides high, constant irradiance with up to 300 ten-second exposures before needing to be recharged. The handpiece has a digital display of 5-, 10-, 15-, or 20-second exposure times and a battery-charge indicator. The charger has a built-in battery gauge to monitor charge levels and a digital radiometer to measure irradiance. LED lights generate light in wavelengths that mirror the absorption wavelengths of the most common photoinitiator, camphoroquinone. A decreased power

demand allows the use of battery-powered units.

### Manufacturer:

Den-Mat Corporation  
2727 Skyway Dr  
Santa Maria, CA 93455  
(800) 445-0345  
(805) 922-8491  
(805) 349-2600 FAX  
[www.denmat.com](http://www.denmat.com)

### Suggested Retail Price:

\$1295.00 Rembrandt Allegro which includes:

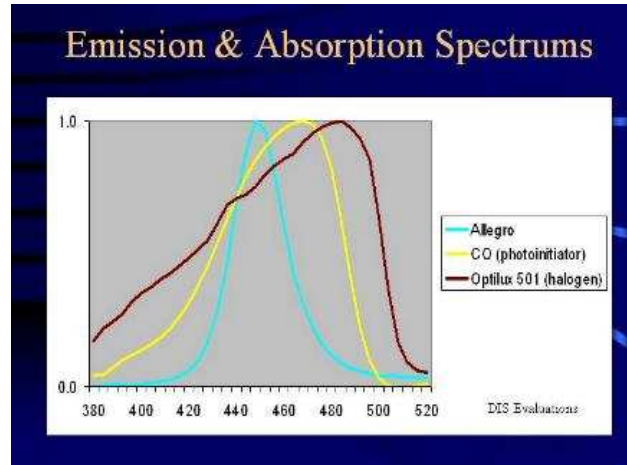
- Allegro handpiece
- 8 mm and 10x14 mm curved turbo light guides
- protective light shield
- wall plug-in transformer
- battery charger
- 2 battery packs
- hardness discs
- 2 pairs of protective safety glasses

### Government Price:

Same as retail

### ADVANTAGES:

- + Cordless, portable design
- + Highest measured irradiance value of any LED unit yet tested by DIS
- + Degree of cure similar to popular halogen curing light
- + Adequately cures 2-mm increment of microfill composite in less than 25 seconds
- + Self-standing base
- + Audible time indicator
- + Minimal lateral heat from LED source
- + Very quiet with minimal fan noise
- + Long battery life with minimal loss of irradiance
- + Protective eye shield
- + Two pairs of protective safety glasses
- + Built-in radiometer



- + Two lithium-ion rechargeable batteries provided
- + Low-battery warning light
- + Disposable hardness discs

**DISADVANTAGES:**

- Expensive
- May not polymerize all photoinitiated dental materials
- Unbalanced with heavy base
- Periodic battery replacement will be necessary
- Bright light emanates laterally from light guide
- Acrylic light guide is not autoclavable

**SUMMARY AND CONCLUSIONS:**

The Allegro is a well designed, easy-to-use, cordless light-emitting diode (LED) curing light from Den-Mat Corporation. The cordless curing light is capable of providing sixty 40-second exposures with minimal loss of irradiance, which should provide adequate curing time for even the busiest practice. The light comes with a protective eye shield, two pairs of protective safety glasses and a built-in radiometer. Laboratory testing found it capable of adequately polymerizing a 2-mm increment of microfill in less than 25 seconds. The Allegro has the highest irradiance of any LED curing light tested by DIS. Degree of cure was similar to a popular halogen curing light. However, the curing light may not polymerize all photoinitiated dental materials due to the limited width of its emission spectrum. All clinical evaluators rated the Allegro as either "Excellent" or "Good" and would consider its purchase. However, the Allegro is one of the most expensive LED curing lights yet evaluated by DIS. The **Allegro** curing light is rated **Acceptable** for use by the federal dental services.